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Colgan et al.

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(54) **HIGH CAPACITY MAGNETIC ANNEALING SYSTEM AND METHOD OF OPERATING**

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See application file for complete search history.

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Related U.S. Application Data

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ABSTRACT

(57) An annealing system and method of operating is described. The annealing system includes a vertical furnace having an inner cylindrical insulating tube and at least one heating element surrounding an outer surface thereof, wherein the inner cylindrical insulating tube defines a processing space into which a plurality of workpieces may be vertically translated and subjected to thermal and/or magnetic processing. The annealing system further includes a workpiece boat for carrying at least one hundred workpieces, a boat loader arranged beneath the vertical furnace, and configured to vertically translate the workpiece boat and position the workpieces within the processing space, and a magnet system arranged outside the vertical furnace and configured to generate a magnetic field within the processing space.

(52) **U.S. Cl.**

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